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# AIR COMMAND AND STAFF COLLEGE



## STUDENT REPORT

A BRIEF HISTORY OF "ADTAC":

THE FIRST FIVE YEARS

Major Maurice C. Eldredge 85-0750

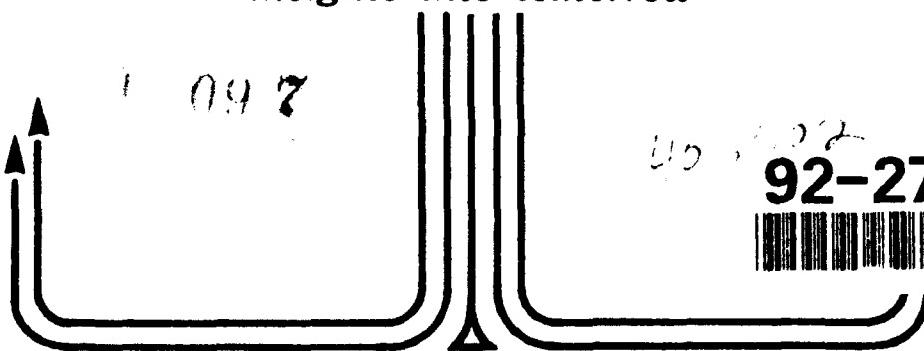
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## PREFACE

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On 1 October 1979, assets assigned to Aerospace Defense Command (ADCOM), the U.S. Air Force major command responsible for strategic air defense, were distributed among Tactical Air Command, Strategic Air Command, and the Air Force Communications Service. The purpose of this paper is to briefly review the events leading to this reorganization and eventual inactivation of ADCOM as a major command, and to examine selected areas of the first five years of air defense forces assigned to Tactical Air Command (TAC), more commonly called "ADTAC". During this review the author will concentrate on the following areas: the origin of ADTAC, organizational structure and mission, personnel and equipment programs, and training and inspection developments. After reviewing the events of the reorganization and subsequent operation, the reader should understand the intricacies of the reorganization and be able to evaluate ADTAC's worth in terms of capability of United States strategic air defense forces.

It should be noted that the author acquired a majority of the information from existing U.S. Air Force historical documents. Additionally, I would like to express my appreciation to Mr. R. Cargill Hall, Chief of the Research Division, USAF Historical Research Center; Mr. Charles A. Ravenstein, Deputy Chief of the Research Division, USAF

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## ABOUT THE AUTHOR

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Major (Lieutenant Colonel selectee) Maurice C. Eldredge is an Air National Guard officer and member of the Class of 1985 at the Air Command and Staff College, Maxwell AFB, Alabama. While attending Air Command and Staff College, he is on leave of absence from his full-time position as an Air Technician with the 177th Fighter Interceptor Group, New Jersey Air National Guard, Atlantic City, New Jersey.

Since graduation from Undergraduate Pilot Training in 1971, the author has been closely associated with the air defense mission and has logged over 2700 hours of flying time, most of which has been in the F-106 Fighter Interceptor. Concurrent with his flying duties, he has held positions in air defense units of Intelligence Officer, Flying Safety Officer, Aircrew Training Officer, Standardization and Evaluation Flight Evaluator, and Operations Officer.

In addition to Undergraduate Pilot Training, the author's military education includes F-102 and F-106 Combat Crew Training Schools, Air Defense Command Intelligence Officers Course (1973), Squadron Officer School (Correspondence, 1974), Interceptor Weapons School (1979), and Air Command and Staff College Correspondence Course (1980). His civilian

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education consists of an A.A.S. degree from the State University of New York, as well as various other courses toward a Bachelor of Science degree in Aviation Technology from Thomas A. Edison College in Trenton, New Jersey.

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## CHAPTER 1

### THE ORIGIN OF ADTAC

Prior to 1 October 1979, air defense of North America was the responsibility of Aerospace Defense Command (ADCOM), a U.S. Air Force major command, and the binational (United States and Canada) North American Air Defense Command (NORAD). NORAD exercised operational control over ADCOM forces, and the Commander in Chief of NORAD, CINCNORAD, was dual hatted, being the commander of ADCOM as well. (6:15) ADCOM assets consisted of over 25,000 military and civilian personnel performing duty at radar sites, missile warning stations, fighter interceptor bases, satellite tracking centers, and command and control centers throughout the world. (1:66)

The portion of ADCOM resources devoted to strategic air defense were becoming outdated, and in some cases no longer useful, because the threat to North America had changed. The Russian bomber threat of the 1950's and early 60's had become less important due to the development of intercontinental ballistic missiles during the 1960s and 70s. (9:4) The large fighter interceptor force designed to counter the Soviet bomber threat was no longer needed to the extent it once was. The fighter aircraft built during this period were dwindling due to peacetime attrition, and due to their age were badly in need of updating or replacement. (6:1-2) Additionally, the air defense radar system developed during the 1950s,

called the SAGE (Semi Automatic Ground Environment) System, employed outdated technology and also needed updating or replacement. (6:3-5) Because of this situation, several Air Force studies considered the options available for updating or reorganizing our air defense forces; none of the options were enacted. (9:4)

In early 1977, pressure from the House Appropriations Committee of Congress, because of what it called concern over the redundancy in the management of the aerospace defense mission, spurred General David C. Jones, Air Force Chief of Staff, to order another Air Force staff study to determine the feasibility of reorganizing the Air Force's defense resources under other U.S. Air Force commands. An alternate recommendation that would reduce ADCOM Headquarters manning and reduce redundancy while maintaining the same basic organizational structure was proposed by General Daniel James, Jr., then Commander in Chief of NORAD. General James' proposal was not accepted; and, in January 1978, a document called the "Greenbook" was published, laying out the plan for the disestablishment of ADCOM. General James retired in December 1977; thus, his replacement, General James E. Hill, was left with the responsibility of implementing the "Greenbook". (9:4)

The reorganization of ADCOM that had been considered in 1977 finally got underway in 1979. (9:1) The following quote reveals the plan of reorganization to be used.

On 29 March 1979 the Air Force announced the forthcoming inactivation of ADCOM as an Air Force major command. Management of active Air Force interceptor units and ground based air defense radars and control centers will be transferred to Tactical Air Command, management of space surveillance and missile warning resources to Strategic Air Command, and management of communications resources to Air Force Communication Service. Transfer of responsibility will begin in the summer of 1979 over an estimated eighteen months.

Operational control of strategic air defense and space surveillance and missile warning assets will remain with CINCNORAD who is also CINC of the U.S. specified Aerospace Defense Command and Commander of the USAF ADCOM. Transfer actions concern only the last named command and only the management of its forces. (1:66)

The planned reorganization was delayed from the summer of 1979 due to a class action lawsuit by 10 ADCOM civilian employees who opposed the reorganization. (9:47) This legal action delayed the start of the reorganization until the fall of 1979. On 21 September 1979, Major General John L. Piotrowski assumed the duty of Tactical Air Command Deputy Commander for Air Defense. (10:xxi) General Piotrowski and his staff were initially stationed in the Chidlaw Building, Headquarters ADCOM, Colorado Springs, Colorado. (10:2) Due to the before mentioned lawsuit, the transfer of resources from ADCOM to the other commands could not take place until 1 October 1979. (9:11-29; 10:17-19) On 1 October 1979, Headquarters U.S. Air Force transferred ADCOM's atmospheric air defense assets to Tactical Air Command. (2:94; 6:2) This event changed how these resources were managed.

Tactical Air Command became responsible for organizing, training, equipping, and administration of aerospace defense interceptors and atmospheric warning radars. Air Force Communications Service took over the operation of ADCOM's communications and electronic assets, and on 1 December 1979, Strategic Air Command assumed the responsibility for missile warning and space surveillance systems. (9:xi-xii)

It should again be emphasized that operational control of strategic air defense, space surveillance, and missile warning assets remained under the command of CINCNORAD.

After 1 December 1979, ADCOM, as a major U.S. Air Force command, no longer had a mission; however, it had not yet been officially inactivated.

(9:1) A new direct reporting unit (DRU) was designated the Aerospace Defense Center (ADC), and activated in Colorado Springs on 1 December 1979. This organization was established from what was left of ADCOM Headquarters.

(9:xii,3,27) On 1 January 1980, Lieutenant General James V. Hartinger replaced General Hill as Commander in Chief of NORAD, ADCOM (specified command), and Commander of the Aerospace Defense Center (direct reporting unit). (11:69) On 31 March 1980, the Aerospace Defense Command (major command) was inactivated. However, a fact that was to cause much confusion down the chain of command was that ADCOM, as a specified command, continued as a component of NORAD. Hence the term ADCOM continued to be used, but did not have the same command relationship that the more familiar major command once did. To help alleviate continued confusion and misuse of terms, the following statement was presented to clear up the misconceptions:

The use of the term ADTAC initially produces some confusion, as some believe that TAC had replaced the Aerospace Defense Command with a command called ADTAC. The term ADTAC, however, applies only to the TAC headquarters element at Colorado Springs; thus it should be used only as a message address or correspondence title or in reference to the ADTAC staff as one would refer to the TAC staff at Langley. There were no ADTAC forces; they were TAC forces for the air defense role. (11:86-87)

By early 1980, the reorganization which was being considered for nearly half a decade resulted in the inactivation of ADCOM as a major U.S. Air Force Command with Tactical Air Command officially taking over responsibility for the management of strategic air defense forces. The new organization, Air Defense, Tactical Air Command, was called "ADTAC". The years immediately following the reorganization would see tremendous changes in the way United States air defense forces conducted their daily business under the control of Tactical Air Command.

## CHAPTER 2

### THE ORGANIZATION AND MISSION

The newly formed ADTAC organization, with headquarters initially located in Colorado Springs, had a command relationship similar to that of the old ADCOM organization in that operational control was still exercised by CINCNORAD. Everyday management, training, and support was directed by the ADTAC headquarters element which reported directly to Tactical Air Command Headquarters. Subordinate to the ADTAC headquarters element were six air defense air divisions, Air Forces Iceland, the DEW (Distant Early Warning) Line Organization, and the Air Defense Weapons Center. (See Illustration 1) (6:15) The six air division commanders also functioned as the NORAD region commanders for their particular regions during wartime operations. The air divisions were divided, with each having responsibility for a specific area of the country and located as described in Illustration 2. (2:96) Each air division was commanded from a SAGE (Semi Automatic Ground Environment) blockhouse housing that division's command and control element plus associated air defense radar and computer hardware. Radar sites associated with the SAGE system consisted of 80 Long Range Radars (LRRs) and 21 radar squadrons. (11:106,110) It is important to note that plans were underway prior to the reorganization to transform the SAGE system into the Joint Surveillance System (JSS). This transformation would use joint-owned and operated (Federal Aviation Agency and Air Force) radar sites to monitor air

traffic for air defense and sovereignty. Additionally, plans to replace the six SAGE blockhouses with Regional Control Centers (RCCs) would follow, thus redesigning the entire network of air defense radars and control centers.

(6:3-5)

Subordinate to each air division were assigned fighter interceptor squadrons. The fighter units allocated to ADTAC consisted of seven Air Force and 10 Air National Guard units. The Air Force fighter squadrons were equipped with F-4 and F-106 aircraft. The Air National Guard units possessed the F-101, F-4, and the F-106. (9:144-145)

A valuable, and by no means the smallest, asset that ADTAC was to manage was the system of 31 radar sites stretching from Alaska to Greenland used to provide early warning attack information. This system was called the DEW (Distant Early Warning) Line. "ADTAC's DEW Systems Office, located at Peterson AFB, Colorado, executed day-to-day responsibility for this mission." (6:34-39)

The Air Defense Weapons Center, located at Tyndall AFB, Florida, was an important asset now being managed within the TAC chain of command. This center was the primary location for training air defense forces. F-106 and T-33 pilot and instructor pilot training, as well as weapons controller training, was conducted here. Tactics research and development and weapons system evaluation were important aspects of the Weapons Center's mission. These programs, along with future changes to be discussed in later chapters,

played an important role in the evaluation and training of air defense forces.

Along with the above resources, ADTAC also acquired two EB-57 faker aircraft units, one Air Force and one Air National Guard, each with the mission of providing electronic countermeasure training. By flying simulated target missions to test radar sites, command and control facilities, as well as interceptor aircrew performance, these units provided additional valuable training for strategic air defense forces.

An important step planned for the reorganization process was the move of ADTAC headquarters personnel from Colorado Springs to Langley AFB, Virginia, home of Tactical Air Command Headquarters. (6:14-15) This move was delayed due to problems with securing a building at Langley to house the offices of the ADTAC personnel, and because of the before mentioned lawsuit which did not allow any permanent transfer of personnel to take place until the suit was settled. Finally in March 1980, Building 664 at Langley AFB was vacated to prepare it for the ADTAC move. (11:87-89) The move was completed on 15 June 1981, with the official responsibility for management of ADTAC forces transferred to the Langley ADTAC staff. (8:3)

With the ADTAC Headquarters now located at Tactical Air Command Headquarters, Langley AFB, Virginia, ADTAC could continue with its mission. The following quote describes the ADTAC mission:

Strategic air defense forces are provided to the Commander in Chief, North American Aerospace Defense Command (CINCNORAD) by TAC. Air Defense TAC (ADTAC), with headquarters at Langley AFB, VA., maintains personnel, equipment, aircraft, and munitions to secure North America's air sovereignty and provides for early warning, attack assessment, and damage limitation from airborne threats.

(3:109)

Translated into more specific terms, ADTAC had the responsibility to provide operationally ready interceptor aircraft and aircrews for air defense alert 24 hours per day, 365 days per year. These assets had to be capable of scrambling to identify and assist or engage unidentified or hostile airborne objects approaching or entering United States airspace without proper approval. These scrambles were initiated from the respective region headquarters based on information derived from radar site data and previously known or expected airborne traffic. During increased states of readiness, these same ADTAC assets would provide additional air defense forces to CINCNORAD to provide early warning information, attack assessment, and air defense of North America. During peacetime operations, the mission of ADTAC was to command, train, manage, and evaluate forces required for the above mentioned air defense contingencies. In doing so, the tasks of preparing budget proposals, acquiring equipment, and providing support requirements, were essential to providing ready air defense forces. An important related function that ADTAC was tasked to perform was providing day-to-day support for Air Forces Iceland to maintain air defense assets available to protect that island nation. These assets were under operational control of the Commander in Chief Atlantic, just as CINCNORAD maintained operational control of ADTAC air defense assets. (See Illustration 1) (8:24; 3:108-110)

With the organizational structure and multiple missions of the ADTAC organization outlined, the following chapters will deal with changes that have taken place within the ADTAC community since the period of reorganization in late 1979.

## CHAPTER 3

### PERSONNEL AND EQUIPMENT

The reorganization of the air defense forces brought with it the exposure to Tactical Air Command (TAC) personnel and equipment programs. Additionally, various programs initiated by ADCOM for the upgrade of the air defense system would be continued. The desire of TAC leadership to improve working conditions, morale, facilities, and equipment was evident by programs such as TOP CARE, BUCK STOP, SHARP LOOK, TOP WHEELS, and NEW LOOK. The TOP CARE program communicated the concerns of leaders over the quality of life for TAC's people. (1:90)

One program used to improve working conditions and morale was called BUCK STOP. Both General Creech, Commander of Tactical Air Command, and General Piotrowski, Commander of ADTAC, promoted this program. The goal was to promote job enrichment and at the same time increase mission effectiveness by decentralization and sound decision making principles. The program encouraged decision making at the lowest possible level based on thorough research, logical consideration of alternatives, evaluation of risks, and contribution to mission accomplishment. (6:20-21)

Another TAC program called SHARP LOOK was designed to improve working conditions, morale, and overall quality of life for unit security police

personnel. "Typical projects included the procurement of gate shelters and general upgrading of facilities such as improved lighting and communications." (6:21) Tyndall Air Force Base, Florida, where the Air Defense Weapons Center (ADWC) is located, was a good example of how SHARP LOOK worked. TAC allocated \$33,000 and the Weapons Center allocated an additional \$75,000 for the program. The money was used to construct "...a new operations building to consolidate security police functions, military dog kennels, and two main gates. Building renovations and equipment and communications upgrading were also recommended." (6:21-22) Other bases conducted upgrade programs similar to this. (6:21-22)

A program to improve the appearance of ground vehicles was also emphasized. This program was called TOP WHEELS. The goal was to improve the appearance and overall mechanical condition of the entire vehicle fleet. ADTAC evaluated air defense unit compliance during inspections and staff assistance visits. (6:22-23)

NEW LOOK was another Tactical Air Command program to improve the work environment of maintenance personnel. Many of ADTAC's maintenance facilities were in bad shape. This program provided additional funds to repair and modernize these facilities. The program "...encouraged maximum local effort toward improving facilities and morale of the maintenance force." (6:24) Operations and maintenance funds were used for this purpose. Again, the Air Defense Weapons Center was a leader in this program. "Some of the ADWC's most noteworthy projects included alteration

of all three maintenance units, remodeling of squadron buildings, rehabilitation of others, and furniture purchases." (6:24) General Piotrowski encouraged the LOOK programs as evidenced by his statement: "I look forward to visiting you all soon and viewing your plans and progress in the various LOOK programs. My goal is to improve the quality-of-life in the work environment. Where we have been successful, the tangible and intangible reward in productivity and attitude have been significant, immediate and observable." (6:25)

In addition to the above programs, other initiatives were already underway or would soon begin to upgrade the radar facilities and aircraft that were now assigned to ADTAC. The age and obsolescence of the surveillance and command and control systems acquired from ADCOM also required changes. At the peak of ADCOM's use of radar sites in the 1960s, there were more than 500 radar sites in the United States and Canada. The Distant Early Warning (DEW) Line across the top of North America and in Greenland consisted of 75 manned radar sites. These numbers had already been drastically reduced. In 1979 there were fewer than 100 long-range aircraft detection radars covering the United States, Alaska, Canada, and Iceland. (6:3) The "...DEW Line sites had shrunk from 75 to 31." (6:3) When management responsibility for air defense forces was assigned to TAC, a revision of these systems was already underway. (6:3) The old SAGE (Semi Automatic Ground Environment) System with its 1950 vintage computers and radar sites, was being replaced by the JSS (Joint Surveillance System) using 1980 vintage computer technology and joint-use (Federal Aviation Agency and

Air Force) radar sites. Tactical Air Command was now responsible for managing this new system which had the mission of peacetime airspace surveillance and control. The Joint Surveillance System would consist of radars, Regional Operations Control Centers (ROCCs), and communications and support facilities. (6:3-4) The ROCCs would be phased in to replace the SAGE blockhouses as command and control centers. The old SAGE system was designed for both peacetime and wartime functions. The JSS/ROCC system was designed primarily for peacetime, or until the tactical situation required transfer of control to an E3A Airborne Warning and Control System (AWACS) designated for air defense. The six continental U.S. SAGE centers were to be replaced by four ROCCs. Two additional ROCCs were planned, one by the Canadians for the defense of Canada, and one for Alaska.

The JSS/ROCC system provided radar coverage around the periphery of the U.S. but was not without problems. The FAA radar sites were designed to be used to control air traffic, not to act as a warning system or a wartime control facility. There were gaps in the radar coverage and areas where a low altitude threat could not be seen by the radar. Additionally, the ROCCs would be vulnerable to attack from the air. (6:3-5) "Nevertheless, the ROCCs would function as the primary command and control center during a crisis or attack for as long as they remained capable. As the tactical situation changed, the E3A would assume control to assure survivability of this function." (6:5) The E3A could not only provide command and control but also possessed low altitude radar tracking capability and resistance to

enemy electronic counter measures. The E3A could also advance to meet the enemy, thus providing more advanced warning. (6:5)

The JSS/ROCC system did not progress toward operational capability as programmed. Various problems delayed it from meeting scheduled phase milestones. "Originally all ROCCs had been scheduled for IOC (Initial Operation Capability) by the end of Fiscal Year 1982, but various problems hampered progress and by late 1981 it was clear that none of the ROCCs would achieve IOC during 1982." (8:222) "In 1983 the Joint Surveillance System, consisting of 36 USAF and FAA joint-use radars, 11 military radars and four continental U.S. Regional Control Centers, replaced the old SAGE air defense system. The final ROCC, located at March AFB, California, reached (IOC) status in December 1983." (5:122) An important asset filling the gaps in the air defense system was the E3A Airborne Warning and Control System (AWACS). The 552nd Airborne Warning and Control Wing, located at Tinker AFB, Oklahoma, was part of Tactical Air Command and supplied AWACS aircraft for strategic air defense purposes. (1:90)

Interceptor aircraft transferred to ADTAC during the reorganization consisted of F-101, F-106, and F-4 fighters. The F-101 was the oldest and was possessed by three Air National Guard units, plus the Air Defense Weapons Center at Tyndall AFB. The F-101s at Tyndall were used mainly as simulated target aircraft employing electronic counter measures (ECM) and for towing targets for testing and training. Due to its age and problems in supporting the F-101, it was soon deleted from the inventory. By the fall

of 1982, all F-101s, including those at Tyndall, had been retired; and, except for those at Tyndall, had been replaced by the F-4 fighter. (1:107-108; 8:xv,xvi,107,127) The F-4 and F-106 remained in the interceptor inventory. The F-4 was possessed by Air National Guard squadrons and the 57th Fighter Interceptor Squadron in Iceland. The F-106 was possessed by Air Force and Air Guard squadrons. Modification of the F-106 through the years had improved its fire control system in an attempt to keep it up-to-date, but did not update its armament except for the addition of a gun. (6:111-112) TAC planned the eventual conversion of all the Air Force F-106 squadrons to the F-15 Eagle with its state of the art fire control system, advanced airframe, excellent avionics, and lockdown-shootdown capability. (6:2-3; 5:122; 4:106)

In 1980 TAC decided that the 48th Fighter Interceptor Squadron at Langley AFB, Virginia, would be the first F-106 unit to transition to the F-15. (8:127)

On 4 January 1982, the 48th was relieved of its NORAD alert responsibility due to conversion to the F-15. On 8 February 1982, as part of the unit conversion to the F-15, the 48th transferred its last F-106 from Langley. On 5 April 1982, the 48th resumed its air defense alert with F-15s at Langley AFB, Virginia and Tyndall AFB, Florida. On 15 April 1982, the 48th made its first intercept of Soviet Bear reconnaissance aircraft since converting to the F-15. (8:xii-xiv)

"On 7 June 1982, the 48th Fighter Interceptor Squadron obtained operational readiness and thus became the first strategic air defense unit to convert from the F-106 to the F-15 A/B." (8:127)

The planned conversion of Active Air Force F-106 squadrons to the F-15 continued. The 318th Fighter Interceptor Squadron located at McChord AFB, Washington, was the second to convert followed by the 5th Fighter Interceptor Squadron programmed to start conversion in the fall of 1984. The 325th Tactical Training Wing at Tyndall AFB, Florida, previously named the 325th Fighter Weapons Wing began converting from the F-106 to the F-15 in October 1983. (5:122)

The 325th will become the future ADTAC F-15 pilot training unit.

The T-33 jet trainers transferred to ADTAC during the reorganization remained in the inventory. The T-33 continued to be used for various support functions as well as weapons controller training and as a simulated target aircraft. The aircraft is flown by both Air Force and Air National Guard squadrons and can be fitted with chaff and electronic countermeasures pods and used as a simulated target for weapons controller and aircrew training. No plans are known at this time for deleting the T-33 from the inventory.

The two squadrons of EB-57 aircraft transferred to ADTAC have been deleted from the inventory. These aircraft were previously used for target missions and electronic countermeasure training. (8:xii.)

As described, there has been a steady progression of personnel and equipment programs for air defense forces since the reorganization in October 1979. Along with these changes, changes to the training and inspection programs have also occurred. The next chapter will examine the training and inspection developments since the reorganization.

## CHAPTER 4

### TRAINING AND INSPECTIONS

In the area of training and inspections, the reorganization required that air defense forces learn and transition to TAC's methodology and philosophy. Although much of the training that TAC and the old ADCOM organization accomplished was similar, many areas were unique to the TAC community and would require alignment and change by the ADTAC forces. Likewise, there was not full understanding in TAC of the air defense mission, hence education in this area was needed.

An important organization that was now a TAC-managed asset, and one that would help air defense forces to align with TAC's way of doing things, was the Air Defense Weapons Center (ADWC), at Tyndall AFB, Florida. This organization had been the hub of ADCOM aircrew training and weapons controller training, as well as the home of the air defense experts. Tactics and weapons systems research and testing were major functions of that facility under ADCOM. "Since training played a major role at the ADWC, on 18 January 1980, ADTAC directed the transition of ADWC formal training procedures to TAC methodology." (6:136) On 30 July 1980, Brigadier General Robert H. Reed assumed command of the ADWC and began a push for rapid alignment of Weapons Center training with TAC philosophy. (6:130) This alignment was an important step in the reorganization and in the direction

of the changes that were occurring to our air defense system. The position of the ADWC as the hub of air defense training provided a catalyst for the TAC methodology and philosophy to spread throughout the air defense community.

Some internal changes occurred at the Weapons Center as well. "The Center reorganized on 1 July 1981, relieving the Commander of the day-to-day management of operations, aircraft maintenance, and test efforts." (8:20) This reorganization did not change the mission of the Weapons Center, though it did change how it operated. A new organization was activated, the 325th Fighter Weapons Wing (FWW). (8:20) "The 325th FWW, through its subordinate units, conducted an extensive training program for air defense aircrews and weapons controllers; the USAF Interceptor Weapons School (IWS) trained instructors in all phases of interceptor weapons systems and employment." (8:20) The Center continued its work in developing, validating, and testing air defense doctrine, tactics, and procedures, as well as development and standardization of fighter weapons techniques and training methods. Previously, F-106 training was conducted by the 2nd Fighter Interceptor Training Squadron (FITS). This unit was redesignated the 2nd Fighter Weapons Squadron (FWS) on 1 February 1982. The 2nd FWS's mission continued to be F-106 training with plans to convert to the F-15 starting in the fall of 1983. The 95th Fighter Interceptor Training Squadron, also a part of the Weapons Center, provided T-33 qualification and upgrade training as well as support for 2nd FWS aircrew training, weapons controller training, and target support for air defense exercises. (8:20) Additionally, "All

continental USAF sub-scale and full-scale drone aerial target operations were consolidated in the 82nd Tactical Aerial Targets Squadron (TATS)."

(8:20) The Weapons Center's drone facilities, proximity to the Gulf of Mexico air-to-air gunnery ranges, and experienced personnel, made it compatible with many of TAC's training programs.

Tactical Air Command training programs are well known. Most notable are the various "flag programs" that concentrate on providing combat training under realistic training conditions. (5:121) Two examples of "flag programs" that related directly to ADTAC forces were Copper Flag and Checkered Flag. Copper Flag is ADTAC's equivalent of TAC's Red Flag, and is held at the ADWC. The first Copper Flag exercise was held in April 1982, and continues to be a vehicle for training and evaluation of strategic air defense forces and current tactics. (8:xiv) "These exercises provide aircrew, weapons controller, and command and control training against enemy tactics and capabilities in scenarios covering the full range of attack and defense options." (4:105) Checkered Flag exercises provide aircrew and ground personnel training in operating from a deployed location. ADTAC forces study and execute carefully developed plans related to deploying to a specific staging base, and operating from that base throughout all aspects of their mission. These two training programs were new to air defense forces since the reorganization and assignment to Tactical Air Command.

At the same time ADTAC forces were becoming familiar with TAC's training program, they were also working toward compliance with appropriate

regulations. This was no easy task and provided much confusion. Previously applicable ADCOM and NORAD regulations and publications were in need of deletion, revision, or other changes. The severity of the problem is reflected in the following quote:

A major undertaking in the realignment of Air Defense Forces was to orient air defense operations more toward TAC procedures and standards. ADTAC advised all of its field units that the current NORAD/ADCOM/ADC regulations and publications would remain in effect for an unspecified period. There was quite a bit of confusion in the units as to which of these publications were still in force and how and when they would be replaced or supplemented with TAC directives. ADTAC identified 469 publications which seemed to apply to air defense operations and began to determine if these publications should remain in force in their present form, be deleted, or integrated into TAC publications. This was a considerable and time-consuming task; for not only did every publication have to be reviewed, those which had to be converted to TAC publications required coordination with NORAD, the Air National Guard, and TAC. (6:26)

This conversion project was less than two-thirds completed as of 7 January 1981. (6:26)

The confusion over regulation applicability, combined with the change in requirements for air defense forces since the reorganization, not only impacted on unit day-to-day operations, but on the inspection system as well. Due to manning constraints, the ADTAC Inspector General (IG) Staff had only 45 authorizations compared to approximately 100 personnel during the ADCOM days. (6:26-27) This staff had the responsibility for conducting Operational Readiness Inspections (ORI), Management Effectiveness Inspections (MEI), and Nuclear Surety Inspections (NSI). An Air Force Inspector General team documented that the ADTAC/IG was undermanned for the

amount of inspections that had to be accomplished. The result was the deletion of specified areas from the inspection process and the use of qualified inspection augmentees from the field. Performance on inspections at unit level was variable, but the units eventually learned what was expected of them and results improved. (6:27-29; 8:41-49; 7:31-47)

In addition to the above mentioned inspections, a new form of inspection that was familiar to TAC but new to ADTAC forces was called a Stan-Eval-Visit. This visit was conducted by the ADTAC Standardization and Evaluation Team; and, although called a visit, was rated like an inspection. The purpose was to test aircrews and evaluate how well they could perform their mission. The results were then used to compare against the local unit standardization and evaluation data to determine the objectivity and effectiveness of the local program. In doing so, an evaluation of the individual aircrew at the unit level, as well as the entire flying training program and evaluation procedures and personnel, could be made. It took some time for ADTAC units to align their operations with that of ADTAC Headquarters, but it was eventually accomplished. The confusion over publications, increased inspection requirements, and more aggressive training programs provided for much initial misunderstanding that was eventually cleared up. The following quote by an ADTAC/IG team member sums up the feeling of the transition to the TAC way of doing things: "I think the best general advice that the IG can offer is to have a unit party as soon as possible! At that party, gather up all the old ADC regs and bury

them. We are in TAC now. Standards are higher and competition is tough, but the key point is the transition is over!!" (6:30)

The quote captures the feeling that many individuals had during and after the reorganization. Nevertheless, the ADTAC forces have continued to operate and perform the air defense mission as part of the Tactical Air Command.

## CHAPTER 5

### SUMMARY

It is hoped that the previous chapters have provided an understandable perspective of the inactivation of Aerospace Defense Command, the U.S. Air Force major command responsible for strategic air defense, and the reallocation of specific ADCOM resources to Tactical Air Command, thus establishing ADTAC. Additionally, it is the author's hope that the ADTAC organization is understood to be part of Tactical Air Command, responsible for managing the air defense forces so as to provide combat ready assets to the operational commanders when needed.

Along with the command structure changes and asset redistribution, the changes that have taken place since 1 October 1979, in the areas of personnel and equipment, and training and inspections, should leave the reader with a feel for what the entire reorganization has accomplished. These programs are a reflection of the tremendous changes in philosophy and attitude of the air defense leadership.

The question of whether the reorganization and associated changes were good or bad will be left for the reader to decide. However, during the evaluation it should be remembered that the changes have already been made. It is the author's suggestion that a more worthwhile activity would be to

determine the next step in bettering our air defense system so if needed,  
there will be no doubt about their ability to "Fly Fight and Win" the war.

## TAC ORGANIZATION FOR STRATEGIC AIR DEFENSE

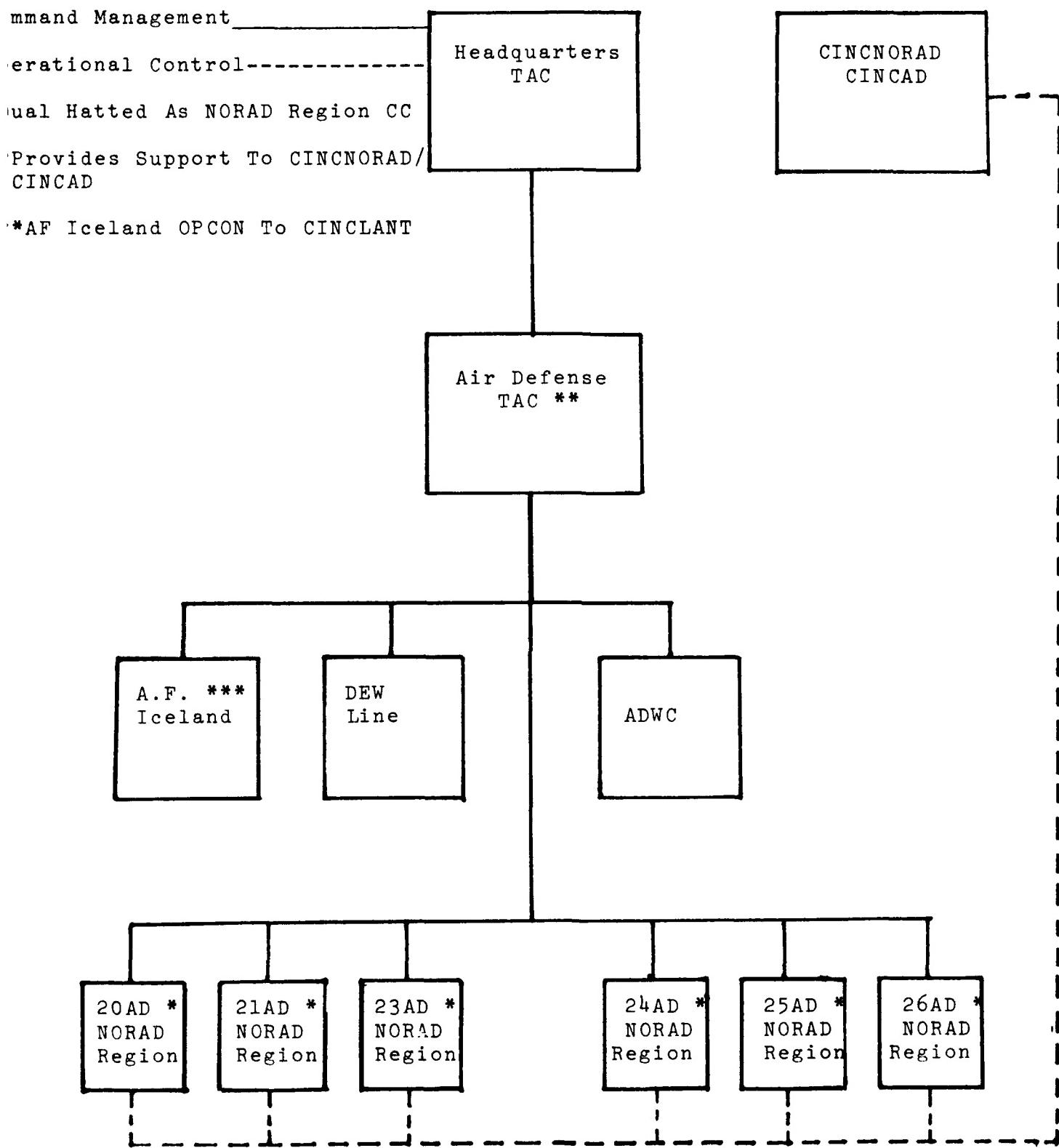
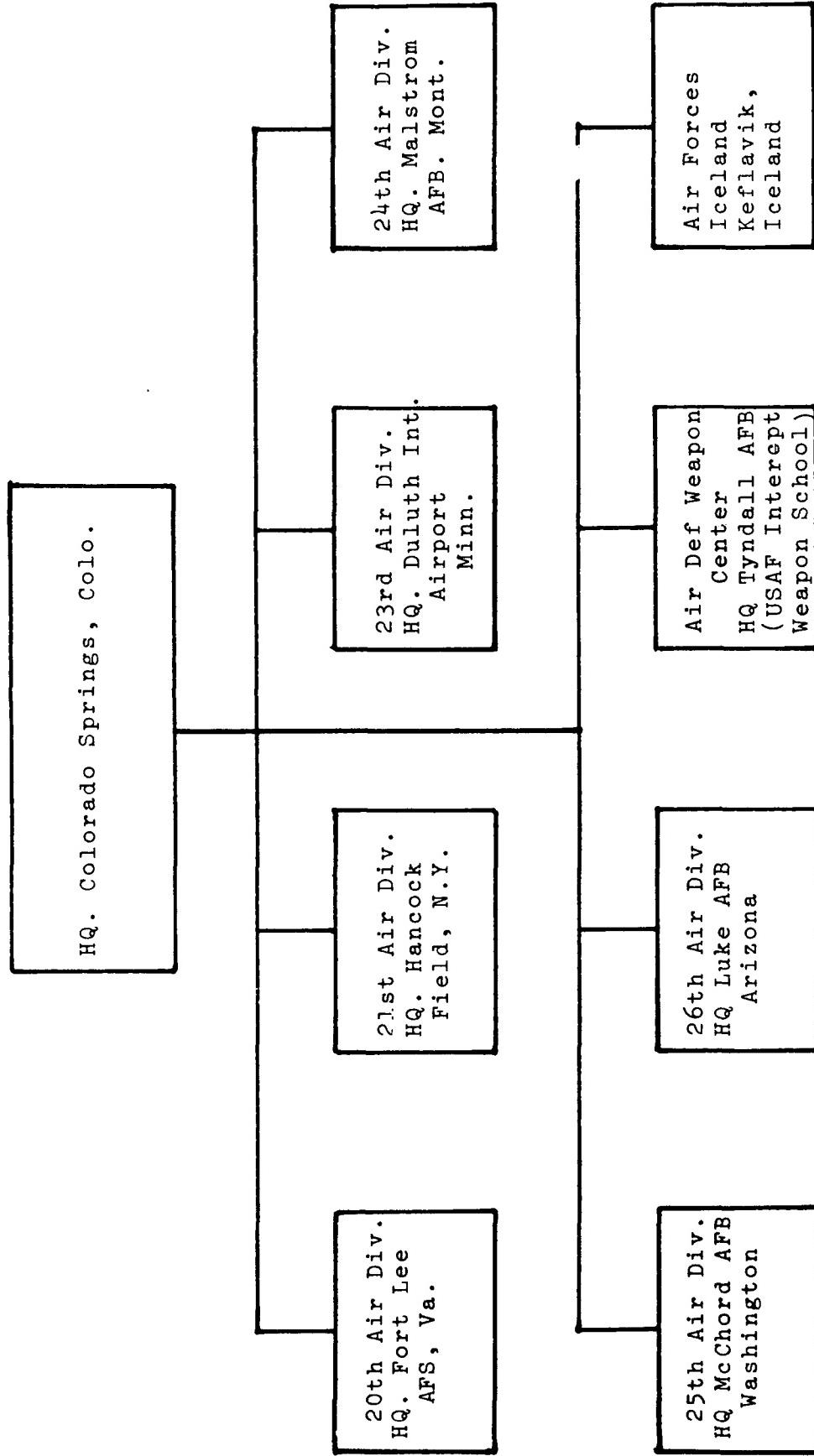


Illustration 1  
(6:95)



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## BIBLIOGRAPHY

---

### A. REFERENCES CITED

#### Articles and Periodicals

1. "Aerospace Defense Command, A Major Command." Air Force Magazine, Vol. 62, No. 5 (May 1979): pp. 66-67.
2. "Tactical Air Command, A Major Command." Air Force Magazine, Vol. 63, No. 5 (May 1980): pp. 94-96.
3. "Tactical Air Command, A Major Command." Air Force Magazine, Vol. 65, No. 5 (May 1982): pp. 108-110, 115.
4. "Tactical Air Command, A Major Command." Air Force Magazine, Vol. 66, No. 5 (May 1983): pp. 102, 105-106.
5. "Tactical Air Command, A Major Command." Air Force Magazine, Vol. 67, No. 5 (May 1984): pp. 120-122.

#### Official Documents

6. Air Defense, Tactical Air Command (ADTAC). History of Air Defense Tactical Air Command, 1 October 1979-31 December 1980. Volume 1, ADTAC Historian, Peterson AFB, Colorado, 14 December 1981. SECRET//FRD//NOFORN, Classified by Multiple Sources.  
"Unclassified information only used from this source."
7. Air Defense, Tactical Air Command (ADTAC). History of Air Defense Tactical Air Command, 1 January-31 December 1981. Volume 1, ADTAC Historian, Peterson AFB, Colorado and Langley AFB, Virginia, 24 January 1983. SECRET//FRD//NOFORN//WN, Classified by Multiple Sources.  
"Unclassified information only used from this source."
8. Air Defense, Tactical Air Command (ADTAC). History of Air Defense Tactical Air Command, 1 January-31 December 1982. Volume 1, ADTAC Historian, Langley AFB, Virginia, 20 December 1983. SECRET//FRD//NOFORN//WN, Classified by Multiple Sources.  
"Unclassified information only used from this source."

## **CONTINUED**

9. Headquarters Aerospace Defense Command. History of ADCOM/ADC,  
1 January-31 December 1979. Aerospace Defense Center Historian,  
Peterson AFB, Colorado, Published date unknown. SECRET/FRD/  
NOFORN, Classified by Multiple Sources.  
"Unclassified information only used from this source."
10. Headquarters Tactical Air Command. History of Tactical Air Command,  
1 January-31 December 1979. Volume 1, Office of TAC History,  
Headquarters Tactical Air Command, Langley AFB, Virginia, June  
1980. SECRET/FRD/NOFORN, Classified by Multiple Sources.  
"Unclassified information only used from this source."
11. Headquarters Tactical Air Command. History of Tactical Air Command,  
1 January-31 December 1980. Volume 1, Office of TAC History,  
Headquarters, Tactical Air Command, Langley AFB, Virginia, May  
1982. SECRET/NOFORN, Classified by Multiple Sources.  
"Unclassified information only used from this source."

### **B. RELATED SOURCES**

#### Articles and Periodicals

"Tactical Air Command, A Major Command," Air Force Magazine, Vol. 64,  
No. 5 (May 1981): pp. 106-108.

#### Official Documents

Headquarters Tactical Air Command. History of Tactical Air Command,  
1 January-31 December 1981. Volume 1, Office of TAC History,  
Headquarters Tactical Air Command, Langley AFB, Virginia, October  
1983. SECRET/NOFORN, Classified by Multiple Sources.  
"Unclassified information only used from this source."

#### Unpublished Materials

Ravenstein, Charles A. "The Organization and Lineage of the United States  
Air Force." A publication written as part of the Historical Studies  
of the Office of Air Force History, USAF Historical Research Center,  
Maxwell Air Force Base, Alabama, January 1984.

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## CONTINUED

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### Other Sources

Hall, R.C. Chief of Research Division, USAF Historical Research Center, Maxwell AFB, Alabama. Discussion, 10 September 1984.

McAllister, P.E. Dr., ADTAC Historian, ADTAC Headquarters, Langley AFB, Virginia. Telecon, 11 September 1984.

Ravenstein, C.A. Deputy Chief of Research Division, USAF Historical Research Center, Maxwell AFB, Alabama. Discussion, 10 September 1984.